

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/24351

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 33/48

US CL : 702/19

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 702/19; 211/41.12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0169560 A1 (HYTOPOULOS et al.) 14 November 2002 (14.11.2002), see especially Detailed Description	1, 3, 5, 7
Y		2, 4, 6, 8
Y	US 2002/0178150 A1 (HYTOPOULOS et al.) 28 November 2002 (28.11.2002), see especially Detailed Description.	1-8
Y	US 6,496,834 B1 (CEREGHINI et al.) 17 December 2002 (17.12.2002), see especially Detailed Description of the Preferred Embodiment.	1-8
Y	YEUNG et al. Model-based clustering and data transformations for gene expression data. Bioinformatics. 2001, Volume 17, Number 10, pages 977-987, see especially Model-Based Cluster Approach.	1-8
Y	MURO et al. Identification of expressed genes linked to malignancy of human colorectal carcinoma by parametric clustering of quantitative expression data. Genome Biology. 2003, Volume 4, R21, pages R21-R21.10, especially Results.	1-8



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

03 February 2005 (03.02.2005)

Date of mailing of the international search report

16 MAR 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Carolyn Smith

Telephone No. 571-272-1600

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US04/24351**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, P	OUYANG et al. Gaussian mixture clustering and imputation of microarray data. Bioinformatics. 2004, Volume 20, Number 6, pages 917-923, see especially Methods and Data.	1-8

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Continuation of B. FIELDS SEARCHED Item 3:

WEST, PUBMED, EMBASE, BIOSIS, SCISEARCH searching terms: missing, value, microarray, cluster, Gaussian, GMCimpute, algorithm, estimate, partition, classification, maximize, converge, computer, method, program, software